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PM&S REF number: 81674/273212

WHAT IS CLAIMED IS:

1. A method for enabling adaptive product recommendations based on multiple-scale ratings, said method comprising:

acquiring post-use multiple-scale ratings from at least one user, said post-use multiple-scale ratings corresponding to at least one product, said at least one product being rated by multiple-scale product ratings, each of said post-use multiple-scale ratings and each of said multiple-scale product ratings comprising a plurality of rating scores with respect to a plurality of rating scales;

analyzing said post-use multiple-scale ratings; and

enabling adaptive product recommendations based on the analysis resulted from said analyzing.

2. The method according to claim 1, wherein said enabling includes at least one of:

updating said multiple-scale product ratings using a new multiple-scale rating generated based on the analysis resulted from said analyzing;

generating at least one multiple-scale personalized filter for said at least one user to filter said multiple-scale product ratings on an individual basis; and

identifying zero or more said rating scales that correlate with dissatisfaction of said users to adjust the importance of each of said rating scales in said multiple-scale product ratings.

3. A method for adjusting a multiple-scale product rating based on post-use multiple-scale ratings, said method comprising:

obtaining a multiple-scale product rating of a product, said multiple-scale product rating comprising a plurality of rating scores with respect to said rating scales;

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acquiring post-use multiple-scale ratings of said product from a plurality of users of said product, each of said post-use multiple-scale ratings comprising a plurality of rating scores with respect to a plurality of rating scales; and

adjusting said multiple-scale product rating based on the post-use multiple-5 scale ratings.

4. The method of claim 3, wherein said adjusting includes:

generating a new multiple-scale rating based on said post-use multiple-scale ratings; and

revising said multiple-scale product rating of said product based on said new multiple-scale rating.

5. A method for generating a multiple-scale personalized filter, said method comprising:

obtaining a plurality of pre-use multiple-scale selection specifications from a user, each of said pre-use multi-scale selection specifications describing a desired product and comprising a plurality of rating scores with respect to a plurality of rating scales;

obtaining a list of products determined based on said pre-use multiple-scale selection specifications and at least one multiple-scale product rating, each of said at least one multiple-scale product ratings corresponding to one of said products and comprising a plurality of corresponding rating scores with respect to said rating scales; and

acquiring post-use multiple-scale ratings of said products from said user, each of said post-use multiple-scale ratings corresponding to one of said products and comprising a plurality of corresponding rating scores with respect to said rating scales.

6. The method of claim 5, further comprising:

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analyzing said pre-use multiple-scale selection specifications and said post-use multiple-scale product ratings to generate a pre/post-use discrepancy; and

generating said multiple-scale personalized filter for said user based on said pre/post-use discrepancy.

7. A method for identifying causes of users' dissatisfaction based on post-use multiple-scale ratings, said method comprising:

obtaining a plurality of pre-use multiple-scale selection specifications from at least one user, each of said pre-use multi-scale selection specifications comprising a plurality of rating scores with respect to a plurality of rating scales;

obtaining a list of products determined based on said pre-use product selection specifications and multiple-scale product ratings, each of said multiple-scale product ratings corresponding to one of said products and comprising a plurality of rating scores with respect to said rating scales; and

acquiring post-use multiple-scale ratings of said products from said at least one user, each of the post-use multiple-scale ratings corresponding to one of said products and comprising a plurality of rating scores with respect to said rating scales.

8. The method of claim 7, further comprising:

acquiring post-use satisfaction ratings of said products from said at least one user of said products;

analyzing said pre-use multiple-scale selection specifications and said post-use multiple-scale ratings to generate a pre/post-use discrepancy; and

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 $\mathbf{x}_i = i - \sqrt{-k}$ if i = -i

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correlating the post-use satisfaction ratings with the pre/post-use discrepancy to identify the rating scales whose pre/post-use discrepancies substantially correlate with low values of said post-use satisfaction ratings.

9. A computer-readable medium encoded with a program for enabling adaptive product recommendations based on multiple-scale ratings, said program comprising:

acquiring post-use multiple-scale ratings from at least one user, said post-use multiple-scale ratings corresponding to at least one product, said at least one product being rated by multiple-scale product ratings, each of said post-use multiple-scale ratings and each of said multiple-scale product ratings comprising a plurality of rating scores with respect to a plurality of rating scales;

analyzing said post-use multiple-scale ratings; and

enabling adaptive product recommendations based on the analysis resulted from said analyzing.

10. The computer-readable medium according to claim 9, wherein said enabling includes at least one of:

updating said multiple-scale product ratings using new multiple-scale rating generated based on the analysis resulted from said analyzing;

generating at least one multiple-scale personalized filter to filter said multiplescale product ratings on an individual basis; and

identifying zero or more said rating scales that correlate with dissatisfaction of said users to adjust the importance of each of said rating scales in said multiple-scale product ratings.

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11. A computer-readable medium encoded with a program for adjusting a multiple-scale product rating based on post-use multiple-scale ratings, said program comprising:

obtaining a multiple-scale rating of a product, said multiple-scale product
rating comprising a plurality of rating scores with respect to said rating scales;

acquiring post-use multiple-scale ratings of said product from a plurality of users of said product, each of said post-use multiple-scale ratings comprising a plurality of rating scores with respect to a plurality of rating scales; and

adjusting multiple-scale product rating based on post-use multiple-scale ratings.

12. The computer-readable medium according to claim 11, wherein said adjusting includes:

Generating a new multiple-scale rating based on said post-use multiple-scale ratings; and

revising said multiple-scale product rating of said product based on said new multiple-scale rating.

13. A computer-readable medium encoded with a program for generating a multiple-scale personalized filter, said program comprising:

obtaining a plurality of pre-use multiple-scale selection specifications from a user, each of said pre-use multi-scale selection specifications comprising a plurality of rating scores with respect to a plurality of rating scales;

obtaining a list of products determined based on said pre-use multiple-scale selection specifications and at least one multiple-scale product rating, each of said at least one

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multiple-scale product rating corresponding to one of said products and comprising a plurality of corresponding rating scores with respect to said rating scales; and

acquiring post-use multiple-scale ratings of said products from said user, each of said post-use multiple-scale ratings corresponding to one of said products and comprising a plurality of corresponding rating scores with respect to said criteria.

14. The computer-readable medium of claim 13, said program further comprising:

analyzing said pre-use multiple-scale selection specifications and said post-use multiple-scale product ratings to generate a pre/post-use discrepancy; and

generating said multiple-scale personalized filter for said user based on said pre/post-use discrepancy.

15. A computer-readable medium encoded with a program for identifying causes of users' dissatisfaction based on post-use multiple-scale ratings, said program comprising:

obtaining a plurality of pre-use multiple-scale selection specifications from at least one user, each of said pre-use multi-scale selection specifications comprising a plurality of rating scores with respect to a plurality of rating scales;

obtaining a list of products determined based on the proximity between said pre-use product selection specifications and at least one multiple-scale product rating, each of said multiple-scale product ratings corresponding to one of said products and comprising a plurality of rating scores with respect to said rating scales; and

acquiring post-use multiple-scale ratings of said products from said at least one user, each of the post-use multiple-scale ratings corresponding to one of said products and comprising a plurality of rating scores with respect to said rating scales.

16. The computer-readable medium of claim 15, said program further comprising:

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acquiring post-use satisfaction ratings of said products from said at least one user of said products;

analyzing said pre-use multiple-scale selection specifications and said post-use multiple-scale ratings to generate a pre/post-use discrepancy; and

correlating the post-use satisfaction ratings with the pre/post-use discrepancy to identify the rating scales whose pre/post-use discrepancies substantially correlate with low values of said post-use satisfaction ratings.

17. A system for adaptively making product recommendations based on multiple-scale product ratings, said system comprising:

an acquisition unit for acquiring pre-use selection specifications from users, each of said pre-use selection specifications specifying a desired product and comprising a plurality of scores corresponding to a plurality of rating scales;

a product rating storage mechanism for storing multiple-scale product ratings on a plurality of products, each of said multiple-scale product ratings corresponding to one of said products and comprising a plurality of rating scores corresponding to said product rating scales;

a product recommendation unit for making product recommendations based on said pre-use selection specifications and said multiple-scale product ratings; and

an acquisition unit for acquiring post-use multiple-scale ratings from said users, each of said post-use multiple-scale product ratings comprising a plurality of rating scores corresponding to said product rating scales.

18. The system according to claim 17, further comprising:

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a calibration unit for enabling adaptive product recommendations based on said post-use multiple-scale ratings.

19. The system according to claim 18, wherein said calibration unit includes at least one of:

a personalized filter generator for generating a personalized filter for one of said users based on said pre-use selection specifications, acquired from said one of said users, and said post-use multiple-scale product ratings, acquired from said one of said users;

an adaptive rating generator for updating multiple-scale product ratings of said products based on said post-use multiple-scale ratings on said products, acquired from said users; and

a correlator for correlating said rating scales based on said pre-use selection specifications and post-use multiple-scale ratings to adjust the importance of said rating scales in said multiple-scale product ratings.

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